CLAIMS

1. Defective recombinant adenovirus comprising at least one DNA sequence encoding all or an active part of a glutathione peroxidase or one of its derivatives.

2. Adenovirus according to claim 1, characterized in that the DNA sequence is a cDNA sequence.

3. Adenovirus according to claim 1, characterized in that the DNA sequence is a gDNA sequence.

4. Adenovirus according to claim 1, 2 or 3, characterized in that the DNA sequence encodes a bovine glutathione peroxidase.

5. Adenovirus according to claim 1, 2 or 3, characterized in that the DNA sequence encodes a human glutathione peroxidase.

6. Adenovirus according to claim 1, characterized in that the DNA sequence is an antisense sequence whose expression makes it possible to control the expression of the gene encoding glutathione peroxidase.

7. Adenovirus according to claim 6, characterized in that it is a gene encoding an antisense RNA capable of controlling the translation of the mRNA for a glutathione peroxidase.

8. Adenovirus according to one of claims 1 to 7, characterized in that the DNA sequence is placed

under the control of signals allowing its expression in the target cells.

9. Adenovirus according to claim 8, characterized in that the expression signals are chosen from viral promoters, preferably from the E1A, MLP, CMV and RSV-LTR promoters.

10. Adenovirus according to claim 1, comprising a gDNA or cDNA sequence encoding a bovine glutathione peroxidase under the control of an RSV-LTR promoter.

11. Adenovirus according to claim 1, comprising a gDNA or cDNA sequence encoding a human glutathione peroxidase under the control of an RSV-LTR promoter.

12. Adenovirus according to one of claims 1 to 11, characterized in that it lacks the regions of its genome which are necessary for its replication in the target cell.

13. Adenovirus according to claim 12, characterized in that it comprises ITRs and a sequence allowing encapsidation, and in which the E1 gene and at least one of the E2, E4, L1-L5 genes are not functional.

14. Adenovirus according to claim 12 or 13, characterized in that it is an Ad 2 or Ad 5 type human adenovirus or a CAV-2 type canine adenovirus.

15. Use of an adenovirus according to one of claims 1 to 14, for the preparation of a pharmaceutical

composition intended for the treatment and/or prevention of neurodegenerative diseases.

16. Use according to claim 15, for the preparation of a pharmaceutical composition intended for the treatment and/or prevention of Parkinson's disease, Alzheimer's disease, Huntington's disease, ALS, trisomy 21, atherosclerosis, cardiovascular diseases, cirrhosis of the liver, diabetes, the formation of cataracts, cerebral ischaemia, cranial traumas, respiratory distress syndrome (ARDS), cancers as well as the aging process.

17. Pharmaceutical composition comprising one or more defective recombinant adenoviruses according to one of claims 1 to 15.

18. Pharmaceutical composition according to claim 17, characterized in that it is in injectable form.

19. Pharmaceutical composition according to one of claims 17 to 18, characterized in that it comprises between 10^4 and 10^{14} pfu/ml, preferably 10^6 to 10^{10} pfu/ml of defective recombinant adenoviruses.

20. Mammalian cell infected with one or more defective recombinant adenoviruses according to one of claims 1 to 14.

21. Cell according to claim 20, characterized in that it is a human cell.

22. Cell according to claim 21, characterized in that it is a human cell of the

retinal, fibroblast, myoblast, hepatocyte, endothelial cell, glial cell or keratinocyte type.

23. Implant comprising infected cells according to claims 20 to 22 and an extracellular matrix.

24. Implant according to claim 23, characterized in that the extracellular matrix comprises a gelling compound chosen preferably from collagen, gelatin, glucosaminoglycans, fibronectin, agarose and lectins.

25. Implant according to claims 23 and 24, characterized in that the extracellular matrix also comprises a support allowing anchorage of the infected cells.

26. Implant according to claim 25, characterized in that the support consists preferably of polytetrafluoroethylene fibres.

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